



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Northwest Region  
7600 Sand Point Way N.E., Bldg. 1  
Seattle, WA 98115

Refer to:  
OSB2001-0038-FEC

June 8, 2001

Rogue River and Siskiyou National Forests  
Attn: Mr. Jack Williams, Supervisor  
333 West 8<sup>th</sup> Street  
Medford, OR 97501-0209

Re: Endangered Species Act Section 7 Formal Consultation and Magnuson-Stevens Act  
Essential Fish Habitat Consultation for Agness Road Reconstruction Project, Curry  
County, Oregon

Dear Mr. Williams:

Enclosed is a biological opinion (Opinion) prepared by the National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act that addresses the proposed Agness Road Reconstruction Project in Curry County, Oregon. Your consultation initiation letter indicated that this action was determined not likely to adversely affect Southern Oregon/Northern California Coasts (SONC) coho salmon (*Oncorhynchus kisutch*). However, analysis of the effects, scope, and scale of the action by NMFS indicated that effects were likely to adversely affect SONC coho salmon and thus a biological opinion was warranted. The NMFS concludes in this Opinion that the proposed action is not likely to jeopardize the SONC coho, or destroy or adversely modify their critical habitat. This document also serves as consultation on Essential Fish Habitat under Public Law 104-267, the Sustainable Fisheries Act of 1996, as it amended the Magnuson-Stevens Fishery Conservation and Management Act.

SONC coho salmon were listed as threatened under the ESA on May 6, 1997 (62 FR 24588), with critical habitat designated on May 5, 1999 (64 FR 54049). Interim protective regulations for SONC coho were issued under section 4(d) of the ESA on July 18, 1997 (62 FR 38479).

Pursuant to section 7 of the ESA, NMFS has included reasonable and prudent measures with nondiscretionary terms and conditions that NMFS believes are necessary and appropriate to minimize the potential for take associated with these projects. NMFS also concludes these actions would adversely affect EFH for coho and chinook salmon, and appropriate conservation recommendations are provided.



Questions regarding this letter or attached Opinion should be directed to Frank Bird of my staff in the Oregon State Branch Office at 541.957.3383.

Sincerely,

*Michael R. Crouse*

Donna Darm  
Acting Regional Administrator

cc: Steve Wille, U.S. Fish and Wildlife Service

Endangered Species Act -Section 7 Consultation  
&  
Magnuson-Stevens Act  
Essential Fish Habitat Consultation

BIOLOGICAL OPINION

Agness Road Reconstruction Project  
Rogue River and Siskiyou National Forests

Agency: U. S. Forest Service

Consultation Conducted By: National Marine Fisheries Service,  
Northwest Region

Date Issued: June 8, 2001

**Refer to:** OSB2001-0038-FEC

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# **1. ENDANGERED SPECIES ACT**

## **1.1 Background**

On March 4, 2001, the National Marine Fisheries Service (NMFS) received a biological assessment and request from the Siskiyou National Forest (SNF) for Endangered Species Act (ESA) section 7 formal consultation on the Agness Road Reconstruction Project located in Curry County, Oregon, for repair and reconstruction of 21.5 miles of existing paved Forest Service road between Lobster Creek and the town of Agness along the Rogue River. The purpose of the work is to upgrade drainage structures, repair unstable areas, pave the road, and reduce long-term maintenance costs prior to transferring highway management to Curry County. This biological opinion (Opinion) considers the potential effects of the proposed actions on Southern Oregon/Northern California Coast (SONC) coho salmon (*Oncorhynchus kisutch*). SONC coho salmon were listed as threatened under the ESA on May 6, 1997 (62 FR 24588), with critical habitat designated on May 5, 1999 (64 FR 54049). Interim protective regulations for SONC coho were issued under section 4(d) of the ESA on July 18, 1997 (62 FR 38479). This consultation is undertaken under section 7(a)(2) of the ESA, and its implementing regulations, 50 CFR Part 402.

The proposed action is repair and reconstruction of 21.5 miles of the Agness Road between mileposts 9.7 and 31.2. Reconstruction would include repairing bridges, replacing culverts with bridges, upgrading all other culverts in poor condition or that have insufficient capacity to pass a 100-year flow or prevent movement of fish to spawning or rearing habitat, stabilizing unstable areas, and repaving the existing road. All project work would occur within the road prism, but would impact a number of streams. The work would involve minor repair of five bridges, replacement of two undersized culverts with bridges, repair or replacement of 180 ditch-relief culverts and 58 stream channel culverts, stabilization of 53 unstable upland sites, and paving of 21.5 miles of road.

The objective of this Opinion is to determine whether the Agness Road Reconstruction Project is likely to jeopardize the continued existence of the SONC coho salmon, or destroy or adversely modify designated critical habitat.

## **1.2 Proposed Action**

The proposed actions involve: 1) Replacement of two culverts with bridges; 2) minor repair of five bridges; 3) replacement or installation of 50 ditch relief culverts; 4) replacement of 16 perennial stream channel culverts, including one “rammed” culvert, installation of 50 slip-lined culverts, grouting of five old culverts, and replacement of 16 intermittent stream channel culverts; and 5) stabilization of 53 unstable upland sites. All work would occur within the Oregon Department of Fish & Wildlife (ODFW) approved inwater work window of July 15 to September 30. All work complies with the Northwest Forest Plan (NFP) standards and guidelines, Aquatic Conservation Strategy objectives, and the applicable watershed analysis

recommendations. A description of the five main project components is detailed below. All projects have the following conservation measures applied:

1. Minimize disturbance of existing vegetation in ditches and at stream crossings to the greatest extent possible;
2. Minimize soil disturbance and displacement. Where potential exists for sediment delivery to water bodies, prevent off-site soil movement through the use of filter materials such as straw bales, waddles, or silt fencing;
3. Meet NFP and ODFW standards for culvert design and installation;
4. Avoid activities in waste areas during wet conditions (regardless of the operating season) that have the potential to deliver sediment to water bodies;
5. Inspect loaded trucks used to haul rock and fill material to prevent spillage due to overfilling;
6. Decommission temporary access roads and minimize sediment delivery to water bodies prior to the first wet season following use;
7. Use sediment blankets or additional rock at road crossings on detour routes used during the wet season where potential exists for sediment delivery to fish bearing streams;
8. Always divert streamflows around activity areas using a pipe or bladder;
9. Remove all activity generated sediment from intermittent stream channels upon completion;
10. Install bridges, heavy equipment footings and culverts over three or more years;
11. Divert stream flows through a pipe or bladder and cap the end and sides of the culvert to prevent spillage when injecting grout into lined culverts;
12. Use absorbent pads when fueling and operating equipment within 100 feet of perennial streams;
13. Mix and pour concrete at least 100 feet from fish bearing streams or use barriers to prevent spillage;
14. Leave downed logs on site.

### **1.2.1 Culverts Replaced with Bridges**

Tom Fry Creek and Snout Creek will have culverts replaced with bridges. This will entail removing the old undersized culverts and associated overburden and replacing with full-span bridges with concrete footings, pillars, and decks with railings. Water present in the stream channel would be routed around the site using a bladder or pipe. All excavated waste material would be transported to an upland disposal site for storage and later use or disposal. All sediment created in the stream channel would be hand removed and sediment prevention measures incorporated, such as straw bales, waddles, or silt fences.

### **1.2.2 Minor Repair of Five Bridges**

Bridges on Shasta Costa Creek, Quosatana Creek, an unnamed tributary to the Rogue River, Illinois River and Rogue River will have minor repairs. These repairs include installation of

bridge approach rails, upgrading the bridge railing systems, repairing deck joints, cleaning and lubricating bridge bearings, patching concrete bridge decks, paving bridge decks and/or approaches with asphalt and removing fill from contact with girders.

### **1.2.3 Replacement of Ditch Relief Culverts**

Approximately 50 Agness Road cross drain culverts would be either replaced or installed new along the 21.5 miles of the road to improve ditch line flows into original drainage networks and to reduce the magnitude of road-generated flows before they reach stream channels. This work would entail removing the old culverts and replacing new culverts into the old culvert bed or digging new cross ditches to accommodate new culverts (as many as six).

### **1.2.4 Replacement of Stream Channel Culverts and Slip-Lining Existing Culverts**

As many as six existing undersized culverts in perennial streams would be replaced and upgraded to accommodate 100-year flood events, sixteen existing undersized culverts in intermittent streams would be replaced and upgraded to accommodate 100-year flood events, and approximately 50 existing culverts in intermittent channels would be slip-lined with inserts and/or grouted.

#### **1.2.4.1 Perennial Stream Culvert Replacement**

The perennial stream culvert replacement entails a variety of approaches. Quosatana Creek and Nail Keg Creek would each have arch pipes with buried bottoms installed, to emulate natural bottoms, and Quosatana Creek tributary would have a larger “rammed” culvert installed. All others would have larger culverts installed. All excavation work on these actions, other than for the rammed pipe, would occur from the existing Agness Road surface. All stream flows would be diverted around the work site through a pipe or bladder. Any sediment generated by culvert removal and installation activities would be removed prior to diverting stream flows back into the original channel.

The rammed culvert at Quosatana Creek tributary would require construction of a temporary access road from the Agness Road through the adjacent riparian area to the stream channel on the downstream side of the existing culvert, and construction of a concrete pad 40 feet by 60 feet to accommodate equipment used in the ramming operation. Ramming entails driving a larger pipe through the road overburden around the existing culvert, removing the old culvert and any materials between the old culvert and the new culvert, removing the concrete pad and reestablishing instream and riparian conditions at the work site. After completion of the ramming operation, all disturbed riparian and upland areas would be reclaimed and planted with native vegetation. In addition, the concrete pad would be removed and the original stream channel restored. All stream flows would be diverted around the work site during construction through a pipe or bladder.

#### **1.2.4.2 Intermittent Stream Culvert Replacement**

The intermittent stream culvert replacements involve working from the Agness Road surface to dig up old culverts and replace with new, larger culverts while the stream channel is dry. All loose materials within the channel will be removed and channel configuration restored at the termination of each project.

#### **1.2.4.3 Slip-Lining Culverts and Grouting Existing Culverts**

Slip-lining culverts involves inserting a smooth pipe into an existing corrugated pipe to increase the flow volume by reducing in-pipe turbulence and friction. After insertion, the space between the two pipe ends is sealed and the interspace filled with grout. Access for pipe installation and grout insertion would be from the road surface so no instream work would be required nor would there be any excavation or sediment production associated with the action. Any active stream flow would be diverted around the work site through either a bladder or pipe during the grouting process; sealing the ends of the pipes would prevent entry of any grout material into the stream channel. None of these streams are fish bearing.

Two to five existing culverts would be grout lined to extend pipe life and increase flow capacity by reducing in-pipe turbulence and friction. Access for pipe installation and grout application would be from the road surface so no instream work would be required nor would there be any excavation or sediment production associated with the action. Streams would be diverted around the work site using bladders or pipes during the grouting process. None of these streams are fish bearing.

#### **1.2.5 Repair of Unstable Upland Sites**

Approximately 55 unstable upland sites along the Agness Road would be stabilized using drainage trenches, down drains and retaining walls. This approach would restore subsurface flows into normal drainage networks and reduce future risk of mass wasting into fish bearing streams or other waterways. All work would require excavation of affected sites to install stabilization features such as the retaining walls and drain systems. All work would occur in upland sites.

### **1.3 Biological Information and Critical Habitat**

The Southern Oregon/Northern California Coasts (SONC) coho salmon occur in the proposed action area. SONC coho salmon were listed as threatened under the (ESA) on May 6, 1997 (62 FR 24588). Critical habitat was designated on May 5, 1999 (64 FR 54049). Interim protective regulations for SONC coho were issued under section 4(d) of the ESA on July 18, 1997 (62 FR 38479). Critical habitat is designated to include all waterways, substrate, and adjacent riparian zones below longstanding, naturally impassable barriers accessible to listed coho salmon between Cape Blanco, Oregon and Punta Gorda, California. The adjacent riparian zone is



defined as the physical environment that may influence the following functions: Shade, sediment delivery to the stream, nutrient or chemical regulation, streambank stability, and the input of large woody debris/organic matter. Biological information for SONC coho salmon is found in Nehlsen et. al (1991); Nickelson et. al. (1992); and Weitkamp et. al. (1995). Long-term trends suggest that natural populations are not self-sustaining.

#### **1.4 Evaluating Proposed Actions**

The standards for determining jeopardy are set forth in section 7(a)(2) of the ESA as defined by 50 CFR Part 402 (the consultation regulations). NMFS must determine whether the action is likely to jeopardize the listed species and/or whether the action is likely to destroy or adversely modify critical habitat. This analysis involves the initial steps of: (1) Defining the biological requirements and current status of the listed species; and (2) evaluating the relevance of the environmental baseline to the species' current status.

Subsequently, NMFS evaluates whether the action is likely to jeopardize the listed species by determining if the species can be expected to survive with an adequate potential for recovery. In making this determination, NMFS must consider the estimated level of mortality attributable to: (1) Collective effects of the proposed or continuing action; (2) the environmental baseline; and (3) any cumulative effects. This evaluation must take into account measures for survival and recovery specific to the listed salmonid's life stages that occur beyond the action area. If NMFS finds that the action is likely to jeopardize, NMFS must identify reasonable and prudent alternatives for the action.

Furthermore, NMFS evaluates whether the action, directly or indirectly, is likely to destroy or adversely modify the listed species' designated critical habitat. The NMFS must determine whether habitat modifications appreciably diminish the value of critical habitat for both survival and recovery of the listed species. The NMFS identifies those effects of the action that impair the function of any essential element of critical habitat. The NMFS then considers whether such impairment appreciably diminishes the habitat's value for the species' survival and recovery. If NMFS concludes that the action will destroy or adversely modify critical habitat it must identify any reasonable and prudent alternatives available.

For the proposed action, NMFS' jeopardy analysis considers direct or indirect mortality of fish attributable to the action. NMFS' critical habitat analysis considers the extent to which the proposed action impairs the function of essential elements necessary for juvenile and adult migration, spawning, and rearing of the SONC coho salmon under the existing environmental baseline. NMFS' Essential Fish Habitat (EFH) analysis considers the effects of proposed actions on EFH and associated species and their life history stages, including cumulative effects and the magnitude of such effects.

### **1.4.1 Biological Requirements**

The first step in the methods the NMFS uses for applying the ESA section 7(a)(2) to listed salmon is to define the species' biological requirements that are most relevant to each consultation. NMFS also considers the current status of the listed species taking into account population size, trends, distribution and genetic diversity. To assess the current status of the listed species, NMFS starts with the determinations made in its decision to list SONC coho salmon for ESA protection, and also considers new data available that is relevant to the determination.

The relevant biological requirements are those for SONC coho salmon to survive and recover to naturally reproducing population levels at which time protection under the ESA would become unnecessary. Adequate population levels must safeguard the genetic diversity of the listed stock, enhance their capacity to adapt to various environmental conditions, and allow them to become self-sufficient in the natural environment. For this consultation, the biological requirements are improved habitat characteristics that function to support successful adult and juvenile migration, spawning, and rearing.

#### **1.4.1.1 SONC coho salmon**

Adult SONC coho salmon enter the Rogue River from September through January, with peak entry occurring in October. River entry and spawning may extend through January, depending on flow and temperature regimes of the river. Spawning occurs from October through December in tributary streams. Emergent fry generally rear for a year or two in their natal streams before migrating to the ocean as smolts. Juvenile coho salmon smolt outmigration generally occurs from March through June, with peak outmigration occurring in April and May. Juvenile outmigration patterns are strongly influenced by photoperiod, stream flows, water temperature, and the lunar phase. Coho salmon smolt remain in the lower Rogue River and estuary for about a week before entry into the ocean, where they complete their ocean life-cycle. Coho salmon generally spend 18 months in the ocean before returning to freshwater streams to spawn and complete the cycle.

Long-term trends suggest that natural populations of SONC coho salmon are not self-sustaining and at risk of extinction.

### **1.4.2 Environmental Baseline**

The current range-wide status of the SONC ESU may be found in Nickelson et. al. (1992); and Weitkamp et. al. (1995). The identified action will occur within the range of the SONC coho salmon ESU. The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area (project area) involved in the proposed action (50 CFR 404.02). The direct effects occur at the project site and may extend upstream or downstream based on the potential for impairing fish passage, hydrologic functions and

processes, stream channel modification, increase in sedimentation and turbidity, displacement of migrating coho salmon, injury or killing of coho salmon, and pollutant discharge into the Rogue River. Indirect effects may occur throughout the watershed where actions described in this Opinion lead to additional activities or affect ecological functions contributing to aquatic and riparian habitat degradation. For this consultation, the action area includes the Rogue River from RM 9.7 to RM 31.2, and all affected tributaries along the Agness Road Reconstruction Project, including the adjacent riparian zone--defined as the area from the edge of the channel migration zone (CMZ) upslope one site potential tree (slope distance).

The project is within the Lower Rogue River watershed of the Rogue Basin. The watershed covers 908.57 square miles. The Rogue Basin drains 5058 square miles in Southwestern Oregon and Northern California. The Rogue River flows west from the headwaters in the Cascades near Crater Lake through interior valleys and coast range mountains of Southwest Oregon to the Pacific Ocean. The Rogue River has two main tributaries: The Illinois River enters the Rogue at RM 27, within the project area, and the Applegate River, which enters the Rogue at RM 95.

The Rogue system has two main dams managed by the U.S. Army Corps of Engineers and hundreds of small water diversions. Lost Creek Dam was completed in 1977 at RM 157 on the mainstem of the Rogue. The Applegate Dam was completed in 1980 at RM 47 on the Applegate River. The dams have significantly altered the natural flow and temperature regime, and impaired fish passage and distribution in the Rogue River Basin.

The Lower Rogue River has been listed on the Oregon Department of Environmental Quality (DEQ) 303d list of water bodies with water quality problems for temperature and pH.

The NMFS Matrix of Pathways and Indicators (NMFS 1996) was used to assess the current condition of various coho salmon habitat parameters in the Lower Rogue watershed. Use of the Matrix identified the following habitat indicators as either at risk or not properly functioning within the action area: Temperature, sediment/turbidity, large woody debris recruitment potential, pool frequency, off-channel habitat, refugia, floodplain connectivity, peak/base flows, increase in drainage network, disturbance history, and riparian reserves.

## **1.5 Analysis of Effects**

### **1.5.1 Effects of Proposed Action**

The effects determination in this Opinion was made using a method for evaluating current aquatic conditions, the environmental baseline, and predicting effects of actions on them. This process is described in NMFS (1996). The effects of actions are expressed in terms of the expected effect (restore, maintain, or degrade) on aquatic habitat factors in the action area. An analysis of effects for each category of effects is described below.

### **1.5.1.1 Culverts Replaced with Bridges**

NMFS expects that there will be short-term and long-term effects associated with the culvert to bridge replacement. Specific effects associated with the action include minor amounts of sediment generated as the old culvert and overburden is removed, the potential for sediment generation and fresh concrete input into the stream channel during bridge construction, and the potential for hazardous materials, such as fuels and hydraulic fluids, to enter the stream channel from the work area. Release of minor amounts of sediment from culvert removal activities is not expected to, in quantifiable terms, adversely affect coho salmon.

#### **1.5.1.1.1 Culvert Removal Effects**

Culvert removal will create disturbances to the active stream channel and leave undetermined amounts of loose materials in the channel that could be transported downstream once water is returned to the channel. Prior to activating the stream channel all loose materials would be removed and stabilization of the channel would occur, including restoring channel morphology and configuration and planting native riparian vegetation, where applicable. Short-term sediment effects are expected to last up to five days, but are expected to be minor and dissipate quickly. No measurable change in percent fines in gravels, or cobble embeddedness in the tributary streams is expected, or change in pool volume at the tributary outfall area of the Rogue River.

#### **1.5.1.1.2 Bridge Construction Effects**

Bridge construction will create short-term sediment effects from the loose material left in the stream channel from the bridge abutment construction. This will be minor as the site will be isolated from the channel and loose materials removed prior to channel activation. The potential for raw concrete to enter the water is also negligible as the site will be dewatered and contained. Prior to activating the stream channel all loose materials would be removed and stabilization of the channel would occur, including restoring channel morphology and configuration and planting native riparian vegetation, where applicable. Short-term sediment effects are expected to last up to five days, but are expected to be minor and dissipate quickly. No measurable change in percent fines in gravels, or cobble embeddedness in the tributary streams is expected, nor change in pool volume at the tributary outfall area of the Rogue River. The release of minor amounts of sediment from bridge construction activities, and the use of concrete to construct bridge abutments, are not expected to adversely affect coho salmon in quantifiable terms.

#### **1.5.1.1.3 Hazardous Materials Effects**

As with all construction activities, accidental release of petrochemicals may occur from refueling events, crank case failure, and rupture of hydraulic lines from nonmobile construction equipment. Working near stream channels with heavy equipment containing fuels, hydraulic fluids and other solvents presents opportunities for adverse effects to critical habitat or listed fish. Introduction of toxic materials can occur from fuel spills during refueling, from equipment servicing and from

accidental discharge. This equipment may be refueled or serviced near the work site. The work sites will be managed to minimize petrochemicals entering waterways. Special refueling equipment and refueling limitations will further minimize petrochemical contamination to streams. Because of the preventive measures implemented in this project, incidental release of petrochemicals or toxic substances into the active stream channel is not expected to occur. If it does, it is not expected to adversely affect coho salmon in quantifiable terms.

#### **1.5.1.2 Minor Repair of Five Bridges**

Installation of bridge approach rails, upgrading the bridge railing systems, repairing deck joints, cleaning and lubricating bridge bearings, patching concrete bridge decks, paving bridge decks and/or approaches with asphalt and remove fill from contact with girders on five existing bridges is not expected to create adverse effects to coho salmon. All work will occur from the either the road surface or bridge surface, and sediment minimization measures will ensure keeping effects confined to the road/bridge surface.

#### **1.5.1.3 Replacement of Ditch Relief Culverts**

Replacing 50 cross drain culverts in dry stream channels during the ODFW approved instream work window is expected to create minor amounts of sediment that would only be transported during the first fall rains. It is likely, however, that most sediment would be stabilized and retained in place because of the sediment detention measures incorporated in this project (straw bales, filter cloth, etc.).

#### **1.5.1.4 Replacement of Stream Channel Culverts and Slip-Lining Existing Culverts**

Slip-lining culverts involves inserting a smooth pipe into an existing corrugated pipe to increase the flow volume by reducing in-pipe turbulence and friction. After insertion, the ends of the pipes are sealed between the old pipe and the new pipe and the interspace filled with grout. Access for pipe installation and grout insertion would be from the road surface so no instream work would be required nor would there be any excavation or sediment production associated with actions. Streams would be diverted around the work site during the grouting process and the ends of the pipes would be sealed to prevent entry of any grout material into the stream channel. None of these streams are fish bearing at the work site.

Two to five existing culverts would be grout lined to reduce in-pipe turbulence and friction and thus flow capacity. Access for pipe installation and grout application would be from the road surface so no instream work would be required nor would there be any excavation or sediment production associated with actions. Streams would be diverted around the work site during the grouting process. None of these streams are fish bearing at the work site.

#### **1.5.1.5 Repair of Unstable Upland Sites**

Repair of 55 unstable upland sites using drainage trenches, down drains and retaining walls would create negligible downstream sediment effects. Since the work is occurring in upland sites, any effects would likely be absorbed by surrounding vegetation filter processes and be undetectable at any distance from the work site. Any sediment effects would be negligible and undetectable as they would likely occur during high flow events in the fall when streams in the area would be flowing at high volumes. Any sediment carried from the site to an adjacent channel would likely be undetectable from baseline sediment levels.

#### **1.5.2 Effects on Critical Habitat**

NMFS designates critical habitat based on physical and biological features that are essential to the listed species. Essential features for designated critical habitat include substrate, water quality, water quantity, water temperature, food, riparian vegetation, access, water velocity, space and safe passage. Critical habitat for SONC coho salmon consists of all waterways below naturally impassable barriers including the project area. The adjacent riparian zone is also included in the designation. This zone is defined as the area that provides the following functions: Shade, sediment, nutrient/chemical regulation, streambank stability, and input of large woody debris/organic matter.

The proposed actions will affect critical habitat. The temporary impacts to critical habitat from bridge replacement, bridge repair, culvert replacement or repair of unstable upland sites are not expected to diminish functions in the long term. Short-term effects from sedimentation and turbidity, and loss of benthic habitats are expected, although recovery from these effects will occur within one to three years.

#### **1.5.3 Cumulative Effects**

Cumulative effects are defined in 50 CFR 402.02 as "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." For the purposes of this analysis, the action area is defined as the Rogue River from RM 9.7 to RM 31.2, and associated and affected tributaries, and includes the adjacent riparian zone, defined as one site potential tree.

NMFS is not aware of any significant change in non-Federal activities that are reasonably certain to occur. In the future, NMFS assumes that future private and State actions will continue at similar intensities as in recent years. Future activities associated with road maintenance are expected for this stretch of road as Curry County assumes management of the road. Each of these projects will be reviewed through separate section 7 consultation processes and therefore are not considered cumulative effects.

## **1.6 Conclusion**

NMFS has determined that, based on the available information, the Agness Road Reconstruction Project is not likely to jeopardize the continued existence of Southern Oregon/Northern California Coasts coho salmon or result in the destruction or adverse modification of its critical habitat. NMFS used the best available scientific and commercial data to apply its jeopardy analysis, when analyzing the effects of the proposed action on the biological requirements of the species relative to the environmental baseline, together with cumulative effects. NMFS applied its evaluation methodology (NMFS 1996) to the proposed action and found that it would cause minor, short-term degradation of anadromous salmonid habitat due to increases in sedimentation and turbidity, loss of benthic resources, and instream habitat loss. These effects will disappear over the long term through natural recovery processes, and are expected to contribute to improved fish passage over the long term. For the proposed actions, the NMFS expects that the effects will maintain or restore each of the habitat elements over the long term (greater than three to five years) based on the current condition of the site. In the short term, increases in sedimentation and turbidity, changes to hydraulics and channel geometry, loss of benthic habitats, displacement of coho salmon, and disruption to migration patterns is expected. Fish may be killed, or more likely, temporarily displaced by the inwater work activities. The potential effects from the sum total of proposed actions, including habitat enhancement activities, are expected to maintain, restore or enhance the function of coho salmon habitat conditions.

## **1.7 Reinitiation of Consultation**

Consultation must be reinitiated if: 1) The amount or extent of taking specified in the incidental take statement is exceeded, or is expected to be exceeded; 2) new information reveals effects of the action may affect listed species in a way not previously considered; 3) the action is modified in a way that causes an effect on listed species that was not previously considered; or, 4) a new species is listed or critical habitat is designated that may be affected by the action (50 CFR 402.16). To reinitiate consultation, ODOT must contact the Habitat Conservation Division (Oregon Branch Office) of NMFS.

## **2. INCIDENTAL TAKE STATEMENT**

Sections 4(d) and 9 of the ESA prohibit any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct) of listed species without a specific permit or exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, and sheltering. Harass is defined as actions that create the likelihood of injuring listed species by annoying it to such an extent as to significantly alter normal behavior patterns which include, but are not limited to, breeding, feeding, and sheltering. Incidental take is take of listed animal species that results from, but is not the purpose of, the Federal agency or the applicant carrying out an otherwise lawful activity. Under the terms

of section 7(b)(4) and section 7(o)(2), taking that is incidental to, and not intended as part of, the agency action is not considered prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

An incidental take statement specifies the impact of any incidental taking of endangered or threatened species. It also provides reasonable and prudent measures that are necessary to minimize impacts and sets forth terms and conditions with which the action agency must comply in order to implement the reasonable and prudent measures.

## **2.1 Amount or Extent of the Take**

The NMFS anticipates that the action covered by this Opinion has more than a negligible likelihood of resulting in incidental take of SONC coho salmon because of detrimental effects from increases in sedimentation and turbidity, disruption to rearing conditions, and the loss of habitat (nonlethal) and the potential for direct incidental take during inwater work (lethal and nonlethal). Effects of actions such as these are largely unquantifiable in the short term, and are not expected to be measurable as long-term effects on coho salmon habitat or population levels. Therefore, even though NMFS expects some low level of incidental take to occur due to the actions covered by this Opinion, the best scientific and commercial data available are not sufficient to enable NMFS to estimate a specific amount of incidental take to the species. In instances such as these, the NMFS designates the expected level of take as "unquantifiable." Based on the information in the biological assessment, NMFS anticipates that an unquantifiable amount of incidental take could occur as a result of the actions covered by this Opinion. For the purposes of this Opinion, the extent of nonlethal take is limited to the Rogue River from RM 9.7 to RM 31.2, and associated and affected tributaries. Lethal take is defined as and limited to killing and harm, and is limited to RM 9.7 to RM 31.2 and associated tributaries. Lethal take shall not exceed 25 SONC juvenile coho salmon.

## **2.2 Reasonable and Prudent Measures**

The NMFS believes that the following reasonable and prudent measures are necessary and appropriate to minimize take of the above species. Minimizing the amount and extent of take is essential to avoid jeopardy to the listed species.

The SNF shall:

1. Minimize the amount and extent of incidental take from construction activities within the proposed action area by ensuring that measures are taken to limit the duration and extent of inwater work, and to time such work when the impacts to SONC coho salmon are minimized.
2. Minimize the amount and extent of incidental take from construction activities in or near watercourses by ensuring that effective erosion and sedimentation control measures are developed, implemented, and maintained to avoid or minimize the movement of soils and



sediment both into and within watercourses and to stabilize bare soil over both the short term and the long term.

3. Minimize the amount and extent of incidental take from constructions activities in or near watercourses by ensuring that an effective spill prevention, containment, and control plan is developed, implemented, and maintained to avoid or minimize point-source pollution both into and within watercourses over the short term and the long term.
4. Minimize the extent of impacts to aquatic, riparian, and riverine habitats, or where impacts are unavoidable, replace or restore lost habitat functions.
5. To ensure effectiveness of implementation of the reasonable and prudent measures, all fish removal and handling, spill containment, prevention and control plans, and hazardous materials sites shall be monitored and evaluated both during and following construction, and meet criteria as described below in the terms and conditions.

## **2.3 Terms and Conditions**

In order to be exempt from the prohibitions of section 9 of the ESA, SNF must comply with the following terms and conditions, which will implement the reasonable and prudent measures described above. These terms and conditions should be incorporated into construction contracts and subcontracts to ensure that the work is carried out in the manner prescribed. Implementation of the terms and conditions within this Opinion will further reduce the risk of impacts to fish and critical habitat. These terms and conditions are nondiscretionary.

1. To implement Reasonable and Prudent Measure #1, above, the SNF shall ensure that:
  - a. Where appropriate, passage is provided for both adult and juvenile forms of all salmonid species throughout the construction period.
  - b. All work within the active channel of the Rogue River and tributaries will be completed within the NMFS/ODFW approved inwater work period, July 15 to September 30. Any adjustments to the inwater work period will first be approved by, and coordinated with, NMFS and ODFW. An extension of the inwater work window may require reinitiation of section 7 consultation.
  - c. The alteration or disturbance of stream bottom, streambanks and existing riparian vegetation will be minimized. Where stream bottom or bank work is necessary, restoration of stream bottom configuration and channel morphology must occur within that construction period, including removal of all materials placed during construction, and bank protection material shall be placed to maintain normal waterway configuration.

- d. The diversion or withdrawal of all water from the stream, if any, and used for construction will comply with all state and Federal laws, particularly those that require a temporary water right and screening of intakes. The SNF shall be responsible for informing all contractors of their obligations to comply with existing, applicable statutes.
- e. A SNF biologist will be on site during construction to ensure that activities which may affect fish contained within the work area are removed by using the least destructive technology that is feasible, prior to any construction activity occurring within the isolation facility, including de-watering.
  - i. Within three months of any fish removal activities, the SNF shall provide a report to NMFS that contains all of the requisite information for reporting take.
  - ii. In the event that any listed species is injured or killed, care will be taken in handling of injured specimens to ensure effective treatment and care or the handling of dead specimens to preserve biological material in the best possible state for later analysis of cause of death and ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.
  - iii. If the lethal take limit is exceeded, construction operations shall stop. SNF will notify the Oregon State Branch of the NMFS, Habitat Conservation Division, at 541.957.3383. Exceeding the take limit requires reinitiation of section 7 consultation.

2. To implement Reasonable and Prudent Measure #2, above, the SNF shall ensure that:

- a. An erosion control plan (ECP) is prepared by SNF resource specialists and implemented by the Contractor. The ECP will outline how and to what specifications various erosion control devices will be installed to meet water quality standards, and will provide a specific inspection protocol and time response. Erosion control measures shall be sufficient to ensure compliance with applicable water quality standards and this Opinion. The ECP shall be maintained on site and shall be available for review upon request. Erosion and sedimentation control measures may include (but not limited to) the following:
  - i. Sediment detention measures such as placement of weed-free straw, silt fences, straw bale barriers, temporary seeding, storm

drain inlet protection, sediment traps, and construction of temporary settling basins where appropriate.

- ii. Erosion control blankets or heavy duty matting (e.g., jute) may be used on steep, unstable slopes.
  - iii. Removal of all instream sediment created by project activities, including complete removal of the concrete apron used to ram the culvert on Quosatana Creek tributary.
  - iv. Bypassing stream flows around construction sites and stabilizing construction sites prior to returning flow to the channel.
- b. Effective erosion control measures shall be in-place at all times during the contract. Construction within the floodplain or stream channel will not begin until all temporary erosion controls are in place, either downstream in dry channels or downslope of project activities within riparian areas.
  - c. All exposed areas will be replanted with native vegetation. Erosion control planting, and placement of erosion control blankets and mats will be completed on all areas of bare soil within seven days of completion of work at any given exposed site within 150 feet of any waterbody, and in all areas during the wet season (after October 1). All other areas will be stabilized within 14 days of project completion. Efforts will be made to cover exposed areas as soon as possible after exposure.
  - b. All erosion control devices will be inspected throughout the construction period to ensure that they are working adequately. Work crews will be mobilized to make immediate repairs to the erosion controls, or to install erosion controls during working and offhours. Should a control measure not function effectively, the control measure will be immediately repaired or replaced. Additional erosion controls will be installed as necessary.
  - c. In the event that soil erosion and sediment resulting from construction activities is not effectively controlled, the contractor will limit the amount of disturbed area to that which can be adequately controlled.
  - d. Prior to operating within 300 feet of any stream channel, inspect and clean all construction equipment. Remove external oil, grease, dirt, and mud. Untreated wash and rinse water will not be discharged into streams and rivers without adequate treatment.

- e. Materials removed during rehabilitation and excavation shall only be placed in upland locations at least 300 feet from the two-year floodplain to ensure that excavated materials do not re-enter the two-year floodplain or stream channel. Conservation of topsoil (removal, storage and reuse) will be employed.
  - f. Where feasible, sediment-laden water created by construction activities shall be filtered before it enters any waterbody, with special emphasis placed on those streams containing listed fish.
  - g. Project actions meet or exceed all provisions of the Clean Water Act (40 CFR Subchapter D) and Oregon Department of Environmental Quality for the National Pollution Discharge Elimination System (NPDES) permit and the Rogue River Basin (OAR Chapter 340, Division 41).
3. To implement Reasonable and Prudent Measure #3, above, the SNF shall ensure that:
- a. The contractor will develop and implement a site-specific spill prevention, containment, and control plan (SPCCP), and is responsible for containment and removal of any toxicants released. The contractor will be monitored by the SNF to ensure compliance with this SPCCP.
  - b. Any spill will be reported to the NMFS.
    - i. In the event of a hazardous materials or petrochemical spill, immediate action shall be taken to recover toxic materials from further impacting aquatic or riparian resources.
    - ii. In the event of a hazardous materials or petrochemical spill, a detailed description of the quantity, type, source, reason for the spill, and actions taken to recover materials will be documented.
  - c. Temporary work bridges, access roads and work pads within 300 feet of the two-year floodplain will have containment measures in place that minimizes any potential of petrochemicals or hazardous materials from entering the two-year floodplain or stream channel.
    - i. The decking of the work bridges shall be constructed to self-contain petrochemicals and hazardous materials from entering the two-year floodplain.
  - d. Measures will be taken to prevent construction debris from falling into any waterbody from the bridge work. Construction materials that fall into

waterbodies during construction operations shall be removed, where feasible, in a manner that has a minimum impact on the streambed and water quality.

- e. Refueling and hazardous materials.
  - i. The refueling plans are submitted to NMFS for review and approval prior to any on-the-ground construction operations.
    - a. Fuel storage locations within 300 feet of the two-year floodplain shall have containment measures in place that meets or exceeds 100% containment.
    - b. Auxiliary fuel tanks are not stored on work bridges, access roads, or within the two-year floodplain.
  - ii. Hazardous materials stored within 300 feet of the two-year floodplain shall have containment measures in place that meets or exceeds 100% containment.

4. To implement Reasonable and Prudent Measure #4, above, the SNF shall ensure that:

- a. Alteration of native vegetation is minimized. Where possible, native vegetation will be removed in a manner that ensures that roots are left intact.
- b. All exposed areas within the riparian corridor will replant with endemic riparian species appropriate for the local overstory and understory plant community.

5. To implement Reasonable and Prudent Measure #5, above, the SNF shall ensure that:

- a. Within three months following completion of any fish removal activities, a report that contains all of the information for reporting take is provided to NMFS.
- b. Upon completion of the project, a copy of all monitoring reports on the effectiveness of implementing and maintaining the SPCCPs are provided to NMFS.

### 3. ESSENTIAL FISH HABITAT

Public Law 104-297, the Sustainable Fisheries Act of 1996, amended the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to establish new requirements for *Essential Fish Habitat* (EFH) descriptions in Federal fishery management plans and to require Federal agencies to consult with NMFS on activities that may adversely affect EFH. EFH “means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” (Magnuson-Stevens Act, section 3). This definition includes those waters and substrate necessary to ensure the production needed to support a long-term sustainable fishery (*i.e.*, properly functioning habitat conditions necessary for the long term survival of the species through the full range of environmental variation).

Section 305(b) of the Magnuson-Stevens Act (16 U.S.C. 1855(b)) requires that:

- Federal agencies must consult with NMFS on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH;
- NMFS shall provide conservation recommendations for any Federal or State activity that may adversely affect EFH;
- Federal agencies shall, within 30 days after receiving conservation recommendations from NMFS, provide a detailed response in writing to NMFS regarding the conservation recommendations. The response shall include a description of measures proposed by the agency for avoiding, mitigating, or offsetting the impact of the activity on EFH. In the case of a response that is inconsistent with the conservation recommendations of NMFS, the Federal agency shall explain its reasons for not following the recommendations.

The Magnuson-Stevens Act does not distinguish between actions in EFH and actions outside of EFH, such as upstream and upslope activities that may have an adverse effect on EFH. Therefore, EFH consultation with NMFS is required by Federal agencies undertaking, permitting, or funding an activity that may adversely affect EFH, regardless of its location.

The designated EFH for groundfish and coastal pelagic species encompasses all waters from the mean high water line, and upriver extent of saltwater intrusion in river mouths, along the coasts of Washington, Oregon and California, seaward to the boundary of the U.S. exclusive economic zone (370.4 km)(PFMC 1998). In estuarine and marine areas, designated salmon EFH extends from the nearshore and tidal submerged environments within state territorial waters out to the full extent of the exclusive economic zone (370.4 km) offshore of Washington, Oregon, and California north of Point Conception to the Canadian border (PFMC 1999). In freshwaters, designated salmon EFH includes all those streams, lakes, ponds, wetlands, and other water bodies currently or historically accessible to salmon, excluding areas upstream of longstanding naturally impassable barriers (*i.e.*, natural waterfalls in existence for several hundred years). The proposed action area encompasses the designated EFH for chinook salmon (*Oncorhynchus tshawytscha*) and for coho salmon (*Oncorhynchus kisutch*).

Detailed descriptions and identifications of EFH for the groundfish species are found in the Final Environmental Assessment/Regulatory Impact Review for Amendment 11 to The Pacific Coast Groundfish Management Plan (PFMC 1998) and the NMFS Essential Fish Habitat for West Coast Groundfish Appendix (Casillas *et al.* 1998). Detailed descriptions and identifications of EFH for the coastal pelagic species are found in Amendment 8 to the Coastal Pelagic Species Fishery Management Plan (PFMC 1998). Detailed descriptions and identifications of EFH for salmon are found in Appendix A to Amendment 14 to the Pacific Coast Salmon Plan (PFMC 1999). Assessment of the impacts to salmon species' EFH from the proposed action is based on this information.

### **3.1 Effects of Proposed Action**

The proposed actions are described above. The action area is SNF administered lands along the lower Rogue River. This reach of the Rogue River has been designated as EFH for various life stages of coho and chinook salmon. The Agness Road Reconstruction Project is not likely to adversely affect the distribution and abundance of adult or juvenile coho salmon or chinook salmon. The proposed action will result in short-term impacts to salmonid habitat through increases in sedimentation and turbidity, and alteration of instream habitats. Long-term spatial and temporal (greater than one year) effects will principally affect benthic habitats, channel geometry, and flow dynamics in tributary streams of the Rogue River. Information submitted by the SNF in the BA is sufficient for NMFS to conclude that the effects of the proposed actions are likely to adversely affect EFH. NMFS also believes that the project design features proposed as an integral part of the actions would avoid, minimize, or otherwise offset potential adverse impacts to designated EFH, as long as terms and conditions as described in the ESA section above are incorporated into the project.

### **3.2 EFH Conservation Recommendations**

Pursuant to section 305(b)(4)(A) of the Magnuson-Stevens Act, NMFS is required to provide EFH conservation recommendations for any Federal or state agency action that would adversely affect EFH. The conservation measures proposed for the project by the Corps, all Conservation Recommendations outlined above in Section 1.7, and all of the Reasonable and Prudent Measures and the Terms and Conditions contained in Sections 2.2 and 2.3 are applicable to salmon EFH. Therefore, NMFS incorporates each of those measures here as EFH recommendations.

### **3.3 Statutory Response Requirement**

Please note that the Magnuson-Stevens Act (section 305(b)) and 50 CFR 600.920(j) requires the Federal agency to provide a written response to NMFS after receiving EFH conservation recommendations within 30 days of its receipt of this letter. This response must include a description of measures proposed by the agency to avoid, minimize, mitigate or offset the adverse impacts of the activity on EFH. If the response is inconsistent with a conservation

recommendation from NMFS, the agency must explain its reasons for not following the recommendation.

### **3.4 Consultation Renewal**

The SNF must reinitiate EFH consultation with NMFS if any of the proposed actions are substantially revised in a manner that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations, if any (50 CFR Part 600.920).

## **4. LITERATURE CITED**

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